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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,100	07/06/2005	Roclof Marissen	4662-18	4098

23117 7590 12/21/2006  
NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER
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ISABELLA, DAVID J

ART UNIT	PAPER NUMBER
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.3738

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/21/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/534,100	Applicant(s) MARISSSEN, ROELOF	
	Examiner DAVID J. ISABELLA	Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-11 and 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Status of the Claims***

Claims 1-11,13-18 and newly added claims 19 and 20 are pending in the application. Claims 16-18 were previously indicated to be allowable. Claims 12,13 and 15 were objected to as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims remain allowable over the prior art. After further consideration of the teachings of Reiley et al [6066154], the subject matter as previously indicated to be allowable has been withdrawn by the examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trieu (6733531) in view of Reiley et al [6066154].

Claims 1-11,14 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Trieu (6733531).

Trieu discloses an artificial intervertebral disc, comprising a nucleus of flexible material with the shape of a flattened body, with a lower and an upper side connected by a lateral surface, around which at least substantially radially oriented windings of a traction-resistant fiber have been applied. See figures 18-25.

Trieu utilizes fabric that contains fibers as being wound around the surfaces.

While Trieu does not specifically define the fiber as being continuous, in column 14, lines 1+, Trieu discloses that the tension band can be of variety of forms, including fiber, woven or non-woven fabric.

superelastic behavior. Other metallic materials include titanium alloy, titanium, stainless steel, and cobalt chrome alloy. Suitable polymeric materials include, for example, polyethylene, polyester, polyvinyl alcohol, polyacrylonitrile, polyamide, polytetrafluoroethylene, poly-  
5 paraphenylene, terephthalamide and combinations thereof. The materials used to form the tension band can be in a variety of forms, including the form of a fiber, woven, or non-woven fabric, braided, bulk solid and combinations

Reiley et al teaches the equivalent between reinforcement in the form of mesh or winding.

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In the case of the proximal humerus 169, a balloon 166 shown in FIG. 18 is spherical and has a base design. It compacts the cancellous bone 168 in a proximal humerus 169. A mesh 170, embedded or laminated and/or winding, may be used to form a neck 172 on the balloon 166, and  
10 second mesh 170a may be used to conform the bottom of the base 172a to the shape of the inner cortical wall at the start of the shaft. These restraints provide additional strength to the balloon body, but the configuration can be achieved through molding of the balloon body. This is so that the ..

To use windings instead of mesh fibers to provide reinforcement around the inflatable implant body would have been obvious to one with ordinary skill in the art as taught by Reiley, et al. As such, Trieu as modified would yield a tension band made

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from a continuous fiber that extends circumferentially around the body of the implant as claimed.

Claim 2, see column 10, lines 48.

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The implants can be shaped as desired. For example, the  
nucleus pulposus implants may take the form of a cylinder,  
50 a rectangle, or other polygonal shape or may be substantially  
oval. The implants may include elastic bodies 750 that are  
tapered, such as at one end, as seen in FIGS. 15A and 15B,  
in order to create or maintain lordosis. Furthermore, in  
certain forms of the invention, the implants generally con-  
55 form to the shape of the nuclear disc space. Additionally,  
implants can be sized to fit within an intervertebral disc  
space, preferably surrounded by an annulus fibrosis, or at  
least partially surrounded by an annulus fibrosis. That is, the  
implants preferably are of a height and have a diameter that  
60 approximates the height and diameter of an intervertebral

Claim 3, see figures 18-25.

Claim 4, column 13, lines 1+.

Claims 5-11, see columns 5,6 and 12.

Claim 13, see windings in Reiley, et al. (see figure 18)


Claims 14-20, see rejection to claim 1 supra.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. ISABELLA whose telephone number is 571-272-4749. The examiner can normally be reached on MONDAY-FRIDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CORRINE MCDERMOTT can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID J ISABELLA  
Primary Examiner  
Art Unit 3738

DJI  
12/9/2006